

"Two and a Bud"

NEWSLETTER

FROM

**CEA EXPERIMENTAL STATION, CINNAMARA, ASSAM
Cham Tea Association, Scientific Department**

PINK AND PURPLE MITES

By
G.M.D.

An increasing amount of damage caused now-a-days to tea bushes, especially young tea, by Pink and Purple mites should be viewed with concern. These pests are so minute and difficult to see without the aid of a highly magnifying glass that in most cases their damage has been attributed to soil conditions, drought or some unknown cause. In 1950-51, a neighbouring garden suffered a loss of 500 mds. of tea from Pink mite damage alone and the pest was subsequently brought under control by the application of Lime sulphur. At Tocklai, the occurrence of these pests has been noticed for the last four years and this year some clonal young plants have been badly damaged by the Purple mite. The Entomologist, during his visits to gardens, has very often come across young tea which has been suffering from a severe attack of either Pink mite or Purple mite.

The Pink mite (*Calacarus theae Watt*) is a pink coloured elongated creature, broadest near the head, tapering towards the posterior end which is provided with a sucker to help in locomotion. It has two pairs of legs. It attacks both the surfaces of the leaves, but the attack is more on the under surface. The damage is indicated by yellowish discolouration of the leaves which often turn almost white and become dry and leathery. The veins and margins of the affected leaves assume a pinkish colour. The Pink mite also attacks the stems of young shoots.

The Purple mite (*Calacarus carinatus Green*) is similar to Pink mite in size and shape but it is of purple colour with five white waxy ridges running along the back. Both the surfaces of the leaves are equally attacked by it. The characteristic symptom of damage is copperish brown discolouration of the leaves, which is more marked at the margins. The damaged leaves when minutely examined reveal the presence of innumerable white particles which are nothing but casts of skins.

Both Pink and Purple mites may appear simultaneously and on the same leaf. Most of the damage is caused during the early part of the season, but young tea is very often severely attacked in the later part of the season.

It is not difficult to detect the Purple mite damage which is so characteristic and the bushes suffering from its attack can easily be recognised from a distance. The discolouration resulting from Pink mite damage is apparently similar to the effect of droughty conditions, but can be detected by the pinkish veins and margins of the leaves. If however, some difficulty is experienced in diagnosis of the cause, it is suggested to examine the leaves with a magnifying glass or send a sample of shoot showing yellowish discolouration in a white cover, properly labelled, to Tocklai for diagnosis.

The control of Pink and Purple mites presents a more difficult problem than that of Red Spider, since they occur on both the leaf surfaces. However efficiently the spraying may be carried out, direct contact of all mite populations with spray cannot be expected. The acaricide should therefore have sufficient residual action, so that the unaffected population may be destroyed subsequently by its persistent toxicity, and the best results are obtained by spraying with a standard lime sulphur containing 22-26% polysulphide at 1 in 39 parts of water on mature tea and at 1 in 44 parts on young tea. Both upper and lower surfaces of the leaves should be thoroughly wetted as far as possible with the spray.

Colloidal sulphur at 1 pint in 50 gallons of water or wettable sulphur at 1 lb. to 10 gallons of water may also be used but more than one application may be necessary to deal with the pests.

These sulphurs and sulphur preparations have high persistent toxicity which acts as fumigant destroying most of the populations which have not come in direct contact with the spray.

STAFF NOTES

By
R.J.M.

John Trinick, tea taster, was married in England in January. John and Mrs. Trinick return to Tocklai early in April.

We congratulate Michael and Mrs. Green and Douglas and Mrs. Swan on the birth of sons, one each.

Dr. and Mrs. Wight proceeded on 6 months overseas leave at the beginning of March. Pat and Mrs. Glover go on leave for 6 months at the end of March and Ian McTear leaves mid-April to return with Mrs. McTear towards the end of July. Sammy Dutta and Pat will also be on overseas leave from July to November. The Director and Mrs. McIlroy will be on leave from June to September inclusive.
